

MALE INFERTILITY – AN AYURVED LITERATURE ASPECT

Smita Sachin Chodankar^{1*} and Sagar Dattatray Dherange²¹Associate Professor, Striroga and Prasuti Tantra Department, Yashwant Ayurved College, Kodoli, Kolhapur.²PG Scholar, Department of Streeroga & Prasruti Tantra, Yashwant Ayurved College, Kodoli, Kolhapur.***Corresponding Author: Dr. Smita Sachin Chodankar**

Associate Professor, Striroga and Prasuti Tantra Department, Yashwant Ayurved College, Kodoli, Kolhapur.

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ABSTRACT

Fatherhood is the prime source of joy in every man. Unfortunately, day by day incidences of male infertility is increasing tremendously. In contemporary science there is limited management modalities to overcome male infertility. Ayurveda explains various management option for male infertility. In Ayurveda Infertility explains as Vyandhatva. Infertility which is mentioned for both Male and Female. There is need of a single compilation, which will describe male infertility in different dimensions of ayurvedic aspect & to understand management of male infertility. Hence, this is an attempt to review concerned topic from classical Ayurveda literature.

KEYWORDS – Male infertility, Vyandhatva, Ayurveda Review.**INTRODUCTION**

Parenthood is the prime desire of every mankind, especially fatherhood which is mostly overlooked. To procreate a healthy progeny which will carry our legacy is the ultimate goal of human. With the changing era, infertility cases have risen with the male factors of infertility being equally responsible as female infertility. Ayurveda encompasses requirement of four factors like Garbha [Uterus] Utpatti Samagri as Rutu, Kshetra, Ambu, Beeja. Each factor is equally important for a healthy pregnancy. Amongst these beeja word is used for both male & female beeja i.e. Shukra [Sperm] & Artava [Ovum].

As with advancing time, incidence of male in fertility is increasing day by day. Male factor is observed in 50% of couples experiencing infertility. In contemporary science male infertility has been widely explained but with limited treatment modalities. The world is expecting a ray of hope from Ayurveda to the field of male infertility. For better understanding diagnosis and management of male infertility, Ayurveda aspect should be thoroughly reviewed.

Ayurveda has given a wide number of medicinal herbs & herbomineral preparations to treat infertility but unfortunately male infertility is not described in any particular one place. To understand aetiopathophysiology of male infertility compilation of all related topic is the need of hour. So, this is an attempt to review male infertility from Ayurvedic aspect.

METHODOLOGY

Ayurvedic classical references were explored from Brihata Trayee i.e. Charaka Samhita, Sushruta Samhita & Ashtanga Hridaya to find out Ayurvedic aspect of male infertility.

Ayurvedic concept of male infertility

Ayurveda describes the importance of Shuddha Beeja in Garbha utpatti Samagri^[1] [Development of foetus]. Here along with Shuddha Artava [Ovum], Shukra [Sperm] should also be in Shuddha form, with unaffected Shukravaha Srotasa. Shukra [Sperm] is the ultimate tissue for procreation, it consists of Beeja as an essence carrying the representations of each organ and tissue conveying the concept of Beeja Bhaga.^[2] Shukravaha Srotasa are two in number and their basis being Stana [Breast] and Vrishana^[3] [Testis] as explained by Acharya Sushruta while Acharya Charaka describes Vrishana [Testis] and Shepha Moola [Penis] as Shukravaha Srotasa.^[4]

Shuddha Shukra [Sperm] is Sphatikabha (Crystalline in shining), Drava (liquid), Snigdha (viscous in consistency), Madhura (sweet in Rasa and Guna) and Madhu Gandhi (having smell of honey).^[5] Shuddha Shukra [Sperm] is responsible for Dhairya, Chyavana (Ejaculation without difficulty), Preeti (Interest toward opposite sex), Bala (Enthusiasm and Strength), Harsha (An exhilarating experience with penile erection associated with determination to have intercourse) and Beejartha (for fertilization).^[6] For ejaculation of Shuddha Shukra from unaffected Shukravaha Srotasa apana Vayu should be in unaffected form which is also responsible for expulsion of

Artava [Ovum], Shakrut [Sperm], Mutra [Urine] and Garbha^[7] [Uterus]. Any variation from these can lead to male infertility. Thus, the factors responsible for male infertility can be summarized into-

1. Shukra Vikriti [Sperm defects]
2. Shukravaha Srotasa Vikriti
3. Vayu Vikriti
4. Manasa Vikriti

Shukra Vikriti [Sperm defects] is mainly of two types

1. Shukra kshaya

Shukra kshaya can be of congenital or acquired in origin. The possible etiological factors of shukra kshaya are explained as

1. Pitra Atyalpa Beeja^[8]

A deficient condition of sexuality resulting from deficient gametes of parents (Alpa Beeja)

2. Alpa Beeja Alpa Bala (Dalhana)

When pregnancy is caused by low quality or quantity of beeja of parents

3. Upa Tapta Beeja^[9]

Vitiation of fragments of male & female gamete responsible for creation of genital tissue in fetus leads to sexual dysfunction

4. Garbha Gata Vayu Prokopa^[10]

Vitiated vata during fetal life can lead to obstruction in Shukravaha srotasa resulting into formation of Pavanendriyatva (Aspermia) & Samskaravaha Anaphrodisiac off springs.

Shukra kshaya [Decreased Sperm] is evidenced by Dourbalya (weakness), Mukha Shosha (dryness of mouth), Pandutva (Pallor), Sadana (lassitude), Shrama (tiredness), Klaibya (Impotency) and Shukra Avisarga (Non ejaculation of semen).^[11] Acharya Vagbhata further describes shukra kshaya as Toda at vrishana & Medhra (pricking pain at scrotal & penile region), Dhumayateeva vedana (Hot sensation), Chirat Prasichet (Ejaculation of less amount of Semen after long time) & Shonitameva (often mixed with blood).^[12]

Acharya Charaka explains causes of shukra kshaya like Jara (old age) Chinta (Anxiety), Sahasajanya Karshya, Abhojana (fasting) & Ati Strisevana (Excess coitus).^[13]

Acharya Sushruta classifies shukra vikriti [Sperm defects] as

1. Alpa retas

Low levels of shukra [Sperm] since birth or the age of 25 years. In this Shukra level never reaches the normal range. These conditions can be correlated with primary hypogonadism like Klinefelter's Syndrome

2. Ksheena retas

Shukra is moderately lower or decreased in the middle age. In this shukra is normal during growth & pubertal

development

3. Vishushka retas

Extremely low levels of shukra [Sperm] or depletion of shukra [Sperm] during old age i.e. after 70 years of age or in diseased condition leading to dhatu kshaya. Androgenic function of testis is affected severely with increasing age.

4. Shukra Dushti [Sperm defection]

5. Vitiated doshas due to their own hetus vitiate the shukra [Sperm] & result into various types of Shukra dushti [Sperm defection].

B) Shukra dushti

Acharya Charaka illustrated wide variety of etiological factors of shukra dushti [Spermdefection], such as.^[14]

Ativyavaya

Excessive intercourse, frequent intercourse will provoke vata dosha & ultimately lead to Vataja Shukra Dushti [Sperm defection].

Alivyayama

Excessive exercise or exercise just prior to intercourse causes increase in temperature of genitals causing damage to shukra dhatu. Now a days many Athletes use various androgenic steroid preparation for bodybuilding purpose which ultimately imbalances the hormonal axis necessary for spermatogenesis & steroidogenesis.

Asatmya sevana

Ahara & vihara [Diet & lifestyle] having properties opposite to Shukra dhatu are likely to have dhatu ghatakara properties. This is a major cause of male infertility. E.x. Alcohol, Marijuana, Cigarette, Nicotine, Steroids.

Akali maithuna

Coitus during unsuitable condition like early childhood, old age or during diseased condition leads to shukradushti [Sperm defection]. Acharya Charaka advised restriction of coital activities prior to 16 years & beyond 70 years.^[15]

Just like a less water containing lake dries up on removing even small quantity of water, shukra dhatu becomes ksheena, if coitus occurs before the age of 16 years.^[16]

Just like an infested wooden stick is easily damageable similarly coital activity may become fatal if performed after the age of 70 years.^[17]

Ayoni maithuna

The penetration of penis other than vagina for of orgasm is known as Ayoni maithuna. These sites can be oral cavity anal canal, palms etc. Such types of ayoni maithuna hampers the psychological condition of human.

If untreated such person may be victimized of Sexual perversion disorders.

Apurna maithuna

Shukra vega is one of the adharaniya vega explained in classical science. The disturbance in sexual activity may leads to incomplete sexual act. E.x. Vegadharana leads to vata prakopa & causes Avarodhatmaka samprapti.

Ruksha, Tikta, Kashaya, Atilavana, Atiamla Atiushna Sevana

Acharya Charaka explained properties of Shukra [Sperm] like bahal, madhura, Snigdha, Avistra, Guru, Picchia, Shukla, Bahu. The Aahara [Diet] having opposite gunas to that of shukra [Sperm] causes shukra dushti [Sperm deflection] unambiguously.

Table 1: Causes of Shukradushti [Sperm deflection].

Aharaja	Asatmya Ahara, Ruksha, Tikta, Kashaya Lavana, Amla, Ushna Dravya
Viharja	Asatmya Vihara, Akall Maithuna, Ati Maithuna, Ayoni Maithuna, Alivyayama, Arasadnya Stri Sambhoga, Vegadharan, Apuma Maithuna
Manasika	Chinta, Shoka, Vistrambha, Bhaya, Krodha
Agantuja	Kshat, Shastra, Kshara, Agni
Nija	Dosha Prakopa, Dhatudushti
Anya Vyadhi	Atisara
Aharaja	Asatmya Ahara, Ruksha, Tikta, Kashaya Lavana, Amla, Ushna Dravya
Viharja	Asatmya Vihara, Akall Maithuna, Ati Maithuna, Ayoni Maithuna, Alivyayama, Arasadnya Stri Sambhoga, Vegadharan, Apuma Maithuna
Manasika	Chinta, Shoka, Vistrambha, Bhaya, Krodha
Agantuja	Kshat, Shastra, Kshara, Agni
Nija	Dosha Prakopa, Dhatudushti
Anya Vyadhi	Atisara

Arasadny stri sambhoga

A female is said to be the most Vajikarana dravya. If a man is not in love with a woman with whom he is going to do sexual activity due to lack of love & interest, he may have shukra dushti. impotency, erectile dysfunction as mentioned earlier.

Chinta, Shoka, Vistrambha, Bhaya, Krodha

The psychological health plays a major role in maintenance of shukra dhatu. The factors like Chinta (Anxiety), Shoka (Grief), Vistrambha (lack of trust or love towards partner), Bhaya (Fear) & Krodha (Anger) will affect Shukra Dhatu directly.

Shastra, Kshara, Agni

Complications raised by the Shastra, Kshara, Agnikarma disturbs the functioning of Shukra Dhatu especially surgeries of urinary bladder, scrotum, prostate, penis. E.g. In case of previous prostate surgery there is chances of retrograde ejaculation into bladder.

Atisara

The passage of excess liquid through anal canal is known as Atisara. The liquid part is made up of Kitta Bhaga of Ahara Rasa. So, in Atisara, Dhatu Nirmiti Karyais deteriorate & patient landed into Bala Hani & Karshyata. As shukra dhatu is the final product of dhatu nirmiti there is deficiency of shukra dhatu leading to shukra dushti.

Vegadharana

Vegadharana of mala, Mootra, Purisha leads to vitiation of vata leading to shukra dushti.

Kshata

Any type of trauma on shukravaha strotasa or all over body

hampers production & circulation of Shukra dhatu. E.g. Injury to testes result defective spermatogenesis, Spinal cord injury leadsto inability of neural control on genitals during coital act.

Dhatudushti

As Shukra is made up of further. product of dhatu nirmiti, any dushti in other dhatu leads to Shukra dushti. E.g. In Meda Dhatu dushti kleda, Mootra, Shukra, kapha, vata gets affected, comparing with ejaculatory dysfunction of diabetic neuropathy origin.

Dosha prakopa

Any of the three doshas if vitiated due to their own or dependable causes are potential enough to cause shukra dushti [Sperm deflection]

In short, causes can be classified as Table 1

Acharya charaka has classified Shukra dushti into^[18]

1. Phenila - Vataja
2. Tanu - Vataja
3. Ruksha - Vataja
4. Puti - Pittaja
5. Picchila -Kaphaja
6. Anya Dhatu Sandushta - Raktaja-Ati Strisanga, Kshata, Aghata
7. Avasadi- Due to vegadharana vata dosha gets vitiated & obstructs shukravaha strotasa leading to Grathita Shukra.

Such grathita shukra if get ejaculated in minimal quantity too, it can result into balahani, so named as Avasadi Acharya Sushruta has classified shukra dushti into 8 types.^[19]

- (i) Vataja
- (ii) Pittaja
- (iii) Kaphaja
- (iv) Kunapa - Raktaja
- (v) Granthi - Vata Kaphaja
- (vi) Puti Puya - Rakta Pittaja
- (vii) Ksheena - Vata Pittaja
- (viii) Mutra Purisha Retasa - Tridoshoja

Acharya vagbhata narrate Shukra dushti^[20] is of 9 types where he has explained Mootrashukra & Purishashukra separately having tridoshoja in origin.

Shukravaha srotasa vikriti

Acharya Charaka explains origins of shukravaha Srotasa as vrishana & shepha,^[21] while acharya Sushruta explains Stana & vrishana as origin of shukravaha srotasa.^[22]

Any ahara vihara opposite to the gunas of dhatu if taken, it can cause damage to the^[23] respective srotasa resulting into expelling of respective dhatu in excess amount or failure to expel causing formation of Grathita Dhatu or Vimarga Gamana.^[24]

Here expelling in excess of shukra dhatu can lead to Shukrakshaya followed by ojakshaya resulting in male infertility. Failure to expel can be due to anejaculation caused by atresia or obstruction in semen conduction system, formation of spermatocele due to less mobility & high viscosity and abnormal ejaculation such as retrograde ejaculation.

Acharya Charaka has specifically given causative factors of shukravaha Srotasa dushti such as Akala yonigamana (Coitus during not having proper arousal), Anuchita yonigamana (bestiality, sodomy etc.), Nigraha (Not having intercourse) or Atimathuna (Too frequent intercourse) or due to use of Shastra, kshara & agni.^[25]

Acharya Charaka, further more explained that due to affected shukravaha srotasa it can lead to Klaibya (Impotency), Aharshana (loss of libido) Rogi - Kleeb-Alpayu Praja (Having diseased, infertile or short life spanned progeny) Na Garbha (Infertility) Garbha Patana (Pregnancy loss).^[26]

Acharya Charaka have Classified Klaibya is of four types.^[27] (Ch.Chi. 30/153-181)

1) Beeja upaghataja

Due to intake of incompatible and uncooked food, grief, anxiety, fear, terror excessive indulging in women, suspicion, deficiency of Rasa, imbalance of vata, fasting, exertion, lack of interest in women, the person become pale, too weak of low vitality, with little erection to women, affected with cardiac disorders, anemia, bronchial asthma, jaundice, vomiting, diarrhea, colic pain, cough & fever. This impotency is due to Beeja ghata.

2) Dhawaja bhanga janya

Due to intake of excess sour, salty, incompatible & unsuitable food, drinking too much water, irregular meals, intake of floury and heavy preparations, regular use of curd, milk & meat of marshy animals, Balahani due to any disease, Dhawaja bhanga may occur. It may also occur due to Coitus with any young girl and in non vaginal routes. Cohabitation lustily and ignorantly with female having chronic illness, having abnormal vaginal discharge, during menstrual periods or intercourse with animals (bestiality).

The penile strength may get hampered due to unhygienic conditions like non washing of penis, wounds over penis by sharp instruments, teeth or nails, trauma to the penis & application of creams, oils, instruments to increase the size of penis.

The dhawaja bhanga is characterized by Swelling, redness & pain in penis, appearance of acute boils, inflammation of penis (balanitis), Abnormal growth around penis, appearance of ulcer with discharge like rice water or blackish or reddish in color, ring like hardness in circumference of penis, fever, thirst, giddiness, vomiting, red, black blue or violet discharge, burn like intense sensation with pain in pelvis, testes and groins. Sometimes there is necrosis as well

i) Jara

Impotency due to old age as mentioned earlier

ii) Shukra kshaya

As mentioned earlier

Klaibya (Impotency) is characterized -1) Linga Shaithilya
2) Shishna Mlanata

Failure of erection of penis in spite of good, trustful partner for having intercourse.

By having intercourse, such men get difficulty in breathing resulting failure to ejaculation or Premature ejaculation.

In contemporary science, the sexual dysfunction leading to impotency consist

- 1) Erectile Dysfunction
- 2) Premature Ejaculation
- 3) Anejaculation
- 4) Retrograde Ejaculation

3. Vayu vikriti

Vata Dosha is responsible for every movement happening in the body. For Prakrita Shukra pravartana, apana vayu is responsible. If this Apana vayu gets vitiated due to^[28] Ruksha Guru Ahara, Vegadharana, Ati pravahana, Yanayana, Ati asana (prolong sitting).

Acharya charaka explained Shukra Avrita Vata^[29] characterized by failure to ejaculate or excessive ejaculation of semen having no potential to procreate progeny.

4. Manasa bhava

The hormonal synthesis & circulation is largely dependent on the psychological health of mankind. Acharya Charaka also emphasize on this by proclaiming Soumanasya Garbha dharanam^[30] i.e. having healthy mind is the higher most important factor to having pregnancy while a mind filled with anxiety, fear, grief, anger, etc. is responsible to decrease strength to have intercourse & pregnancy.^[31]

Management

By having wide illustrated information of aetiology, types, clinical features of male infertility the treatment becomes easier from Ayurveda aspect

Acharya Charaka has given treatment modalities such as (32)

- 1) Vajikarana Yoga
- 2) RaktaPitta Nashaka Yoga
- 3) Yonivyapada Chikitsa Yoga
- 4) Jeevaniya Ghrita, Chyavanprasha Avaleha, Shuddha Shilajatu

According to Dosha dominance.

1. Vataja - Niruha, Anuvasana Basti
2. Pittaja - Abhaya Amalakiya Rasayana
3. Kaphaja - Pippali Rasayana, Amalaki Rasayana, Loha Rasayana, Triphala Rasayana, Bhallataka Rasayana
4. Other According to involvement of dhatus.

Acharya Sushruta given treatment option according to type of shukra dushti

1. Vataja - Snehana, Swedana, Vamana, Virechana, Niruha Basti, Anuvasana Basti, Uttar Basti
2. Pittaja- Snehana, Swedana, Vamana, Virechana, Niruha Basti, Anuvasana Basti, Uttar Basti
3. Kaphaja- Snehana, Swedana, Vamana, Virechana, Niruha Basti, Anuvasana Basti, Uttar Basti
4. Kunapa - Dhatakpushpa, Khadir, Dadima, Arjun Siddha Ghrita, Shalasaradi Gana Kashaya Or Kalka Siddha Ghrita
5. Granthi- Shati Siddha Or Palasha Bhasma Sadhita Ghrita
6. Putipuya- Parushakadi Or Vatadi Gana Sadhita Ghrita
7. Ksheena- Swayoniwardhaka Dravya
8. Mootrapurisha - Chitraka, Ushira, Hingu Siddha Ghrita

Though treatment has been given for Mootra Purisha Shukra, it is termed as Asadhya by Acharya Sushruta.

Special drugs mentioned by Acharya Charaka. 1) Vrishya^[33]

The drugs having Madhura, Snigdha, Jeevana, Brihana, Guru & Manas Harshana properties are of are known vrishya which are of three types

- 1) Shukra Strutikara Drugs having properties to expel out shukra

Eg. Masha, Akarakarabha, kroncha, Karpoora, Dhatura Shukra Vivardhana.

Drugs which increase quality & quantity of shukra dhatu^[34]

E.g. Jeevaka, Rishibhaka, Kakoli, Ksheerkakoli, Mudgaparni, Mashaparni, Meda, Shatavari, Jatamansi Kulinga.

2) Shukra Struti vrudhikara

Drugs having both properties to increase & expel the shukra dhatu Eg. Bhanga, Kasturi, Kuchala Acharya Charaka has given special group of drugs to treat shukradushti known as Shukra Shodhana Mahakashaya^[35] consisting of Kushtha, Elavaluka, Kataphala, Samudraphena, Kadambaniryasa, Ikshu, Kandekshu, kokilaksha, Vasuka & Ushira.

DISCUSSION

Sexual health is a complex multidimensional physiological process which is often less discussed but important & aimed procreation of healthy progeny. The factors discussed above such as Aharaja, Viharaja, Manasika, Nija, Agantuja & due to Anya Vyadhi leads to male infertility. In this review article, all review of male infertility i.e. its Nidana, its Lakshanas, its importance and its management was explained according to Ayurveda. While doing Vyadhi Nidana of Male infertility, every aspect of causative factor and its importance was explained in this review article. Also its classification according to various Acharya's was explained along with its proper management. Diagnosis of Male infertility is important in today's era because it includes Shukra Dushti, Shukravaha Srotasa Dushti, and also includes Manasa Dushti. Therefore, important to review the Male infertility according to Ayurveda as well as Modern.

CONCLUSION

To summarize male infertility according from ayurved aspect, it is mainly; Shukra Dushti, Shukravaha Srotasa Dushti, Vayu Vikriti, Manasa Dushti. By having detailed knowledge about etiological factors, types & management of male Infertility this article can help in diagnosis & management of male infertility by Ayurved aspect.

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